

an astonishingly increased longevity, they do not see their cost of manufacture suffer as a result.

The invention therefore concerns a fuel cell device comprising at least one membrane according to the invention.

*A Brief Description of The Drawings --*  
The invention will now be described in greater detail, with reference to the attached figures, in which:

- Figure 1 is a schematic representation of a fuel cell comprising several base cells with an Electrode-Membrane-Electrode assembly, as well as bipolar plates.

- Figure 2 is a graphic that representing the change in the conductivity  $C$  in S/cm as a function of time  $t$  in hours for polymers with hydrophilic blocks of different lengths, viz., blocks of 3 repeating units (curve A); blocks of 1 unit, random polymer (curve B); 9 units block (curve C); 5 units block (curve D);

- Figure 3 is a graphic (an impedance diagram) which gives  $-I_m(Z)$  as a function of  $Re(Z)$  for a membrane made of a polymer that have hydrophilic blocks with 9 repeating units, before degradation;

- Figures 4A and 4B are impedance diagrams (NYQUIST) for membranes made of polymer that have hydrophilic blocks with 9 repeating units as a function of ageing time, i.e.,: 355 hours (curve A); 543 hours (curves B); 704 hours (curve C); 1,175 hours (curve D); 2,008 hours (curve E) and finally 2,450 hours (curve F);

- Figure 5 is a graphic that illustrates the loss of mass  $P$  in % as a function of the time of immersion in water ( $t$ ) in hours for a sulfonated polyimide the